

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-13. (Cancelled)

14. (Currently Amended) A pen-based computing system for estimating the orientation of a segment of digital ink, the system including a pen-based computing pen to input digital ink, and a processor adapted to estimate the orientation of a segment of digital ink by measuring the azimuth of the pen at a sampling rate during writer generation of the segment of digital ink, determining ~~an average a~~ mean azimuth for all of the sampled points, and estimating the orientation of the segment of digital ink by subtracting the determined ~~average~~ mean azimuth from each measured azimuth of each sampled point.

15. (Cancelled)

16. (Cancelled)

17. (Previously Presented) A system as claimed in claim 14, wherein the processor is further adapted to use the estimated orientation of the segment of digital ink in a digital ink line orientation normalization technique.

18. (Previously Presented) A system as claimed in claim 14, wherein the processor is further adapted to use a single, fixed orientation estimation for a line of digital ink.

19. (Previously Presented) A system as claimed in claim 14, wherein the processor is further adapted to use an orientation estimation that varies across a line of digital ink.

20. (Previously Presented) A system as claimed in claim 14, wherein the processor is further adapted to normalize the estimated orientation to be within the range of 0° to 360°.

21. (Previously Presented) A system as claimed in claim 14, wherein the segment of digital ink is more than one character of digital ink.

22. (Previously Presented) A system as claimed in claim 14, wherein the segment of digital ink is a line segment.

23. (Previously Presented) A system as claimed in claim 22, wherein the processor is further adapted to perform line segmentation by measuring a change in azimuth value.

24. (Previously Presented) A system as claimed in claim 14, wherein the processor is further adapted to use a writer independent handwriting model to estimate the orientation.

25. (Previously Presented) A system as claimed in claim 14, wherein the processor is further adapted to use a writer dependent handwriting model trained using sample digital ink input by the writer to estimate the orientation.

26. (Previously Presented) A system as claimed in claim 25, wherein the writer dependent handwriting model is trained using sample digital ink input by the writer using a consistent baseline.

27. (Previously Presented) A system as claimed in claim 25, wherein the writer dependent handwriting model is trained using arbitrary sample digital ink input by the writer.